REMARKS

Claims 1, 2, 5-8, 10, 11 and 14-20 were pending when the application was last examined. Claims 1, 7, 10 and 16 are amended. New claims 21-25 are added. Claims 1, 2, 5-8, 10, 11 and 14-25 are now pending, of which, claims 1, 7, 10 and 16 are independent. Applicants respectfully traverse the rejections.

Examiner Interview

Applicants thank the Examiner for courtesies extended to Applicants during the Examiner's interview with a applicants' representative, which took place on February 12, 2008. During the aforesaid interview, the Examiner has indicated that the foregoing claim amendments overcome the cited art. However, no agreement was reached.

Rejections under 35 U.S.C. 102(b)

Claims 1, 2, 5-8, 10, 11 and 14-20 are rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Jurafsky et al. (Automatic Detection of Discourse Structure for Speech Recognition and Understanding).

Applicants respectfully traverse this rejection in view of the amendments to the claims and further in view of the following arguments.

Claim 1

Claim 1, as amended, recites "A method of determining user interactions comprising: determining speech information; determining discourse functions and prosodic features in the speech information; selecting a predictive interaction model, the predictive interaction model developed by associating discourse functions of and prosodic features of a training corpus of turn annotated speech with turn information of the training corpus of turn annotated speech; and

determining an interaction turn, in the speech information, based on the predictive interaction model and the discourse functions of the speech information and the prosodic features of the speech information, wherein the predictive interaction model accepts the prosodic features of the speech information as one input and a current discourse function of the speech information as another input and determines a likelihood that a next discourse function is associated with the interaction turn." (Emphasis added.)

Support for these amendments may be found throughout the specification and drawings and, for example, in paragraph [0031] of the specification stating "The predictive interaction model associates the annotated turn information with identified prosodic features and discourse functions" and in paragraph [0032] stating "The predictive interaction model accepts prosodic features and a current discourse function and returns the likelihood that the next discourse function is associated with a turn event in the dialog."

Applicants submit that claim 1 is not anticipated by Jurafsky and remains patentable in view of this reference.

Jurafsky does not appear to teach a predictive model that "accepts the prosodic features ... as one input and a current discourse function ... as another input and determines a likelihood that a next discourse function is associated with the interaction turn" of claim 1.

According to the Office action, section 3.4 of Jurafsky teaches "determining an interaction turn based on the predictive interaction model and the determined discourse functions and prosodic features." (Office action, p. 3.) In the cited section 3.4, Jurafsky combines the three knowledge sources "word string," "prosody," and "discourse grammar." First, section 3.4

of Jurafsky does not provide a clear description of how Jurafsky combines its three knowledge sources and is not enabled to provide an anticipating disclosure. Second, this section does not include the discourse function as an input to the model, only the word strings are input. Third, there is no turn-annotated speech in Jurafsky that could form the basis for a model. Rather, in Jurafsky conversations that had already been hand-segmented into utterances are tagged with a set of dialog act tags. (Jurafsky, p. 90.) The dialog acts include turns but the tagging is not limited to tagging by turns only, and it includes all other types of dialog acts. Because this form of annotation already possibly includes some types of discourse functions associating it with discourse functions again is meaningless.

Accordingly, Jurafsky does not teach or suggest a "predictive interaction model developed by associating discourse functions and prosodic features of a training corpus of turn annotated speech with turn information of the training corpus of turn annotated speech" of claim 1 that can be used to "accepts the prosodic features ... as one input and a current discourse function ... as another input and determines a likelihood that a next discourse function is associated with the interaction turn."

Accordingly, claim 1 is not believed to be anticipated by Jurafsky and is patentable over this reference. With respect to the rejection of dependent claims 2, 5-6, 17-18 and 20-22, while continuing to traverse the Examiner's characterization of the teachings of the references used by the Examiner in rejecting these claims, Applicants respectfully submit that the rejection of these claims is rendered moot by the present amendments of the parent claim 1 and that these claims

are patentable by definition, by virtue of their dependence upon the patentable independent claim 1.

Claim 7

Claim 7 is amended to include "determining discourse functions and prosodic features associated with a turn information of the turn annotated speech information; and determining a predictive interaction model based on the discourse functions, the prosodic features and the turn information, wherein the predictive interaction model is adapted to accepting the prosodic features of a speech information as one input and a current discourse function of the speech information as another input and determining a likelihood that a next discourse function is associated with the turn information." (Emphasis added.) Support for these amendments may be found throughout the specification and drawings and, for example, in paragraphs [0031] and [0032] of the specification.

As discussed above, Jurafsky does not appear to teach or suggest a "model based on the discourse functions, the prosodic features and the turn information" that is "adapted to accepting the prosodic features ... as one input and a current discourse function ... as another input and determining a likelihood that a next discourse function is associated with the turn information" of claim 7.

Accordingly, claim 7 is not believed to be anticipated by Jurafsky and is patentable over this reference. With respect to the rejection of dependent claims 8, 19 and 23, while continuing to traverse the Examiner's characterization of the teachings of the references used by the

Examiner in rejecting these claims, Applicants respectfully submit that the rejection of these claims is rendered moot by the present amendments of the parent claim 7 and that these claims are patentable by definition, by virtue of their dependence upon the patentable independent claim 7.

Claim 10

Jurafsky does not appear to teach or suggest that "the predictive interaction model accepts the prosodic features of the speech information as one input and a current discourse function of the speech information as another input and determines a likelihood that a next discourse function of the speech information is associated with the interaction turn." of claim 10.

Accordingly, claim 10 is not believed to be anticipated by Jurafsky and is patentable over this reference. With respect to the rejection of dependent claims 11, 14, 15, 24 and 25, while continuing to traverse the Examiner's characterization of the teachings of the references used by the Examiner in rejecting these claims, Applicants respectfully submit that the rejection of these claims is rendered moot by the present amendments of the parent claim 10 and that these claims are patentable by definition, by virtue of their dependence upon the patentable independent claim 10.

Claim 16

Jurafsky does not appear to teach or suggest that "determining a predictive interaction model ... being developed by associating discourse functions of a training corpus of turn annotated speech and prosodic features of the turn annotated speech with turn information of the turn annotated speech ... the predictive interaction model accepts the prosodic features ... as one

input and a current discourse functions ... as another input and determines a likelihood that a next discourse function is associated with the interaction turn." of claim 16. Accordingly, claim 16 is not believed to be anticipated by Jurafsky and is patentable over this reference.

CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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Date: April 22, 2008